Satin Moth photographs
(and list of descriptions)
taken by R. W. Webber in
Washington State - transmitted with 4/16/38 letter
from C. W. Collins.

R. T. Webber
Rec'd Aug. 26, 1935

1. Hoquiam, Wa. - Observation point located at the terminus of second street north after you pass Simpson Ave. Bridge, travelling west. Lombardy poplars with a light infestation of recent origin. There are a considerable number of poplars scattered around the city and some of them are also infested. No instance of noticeable defoliation occurred during 1935. Apanteles was the only introduced parasite recovered. Photo. taken July 1, 1935.

2. Elma, Wa. - Observation point off route U.S. 410, on Martin St. Carolina poplars, lightly infested. According to resident, the caterpillars were first observed last year and some defoliation of nearby trees resulted. This year partial to complete defoliation of several trees was noted on July 1st. On Aug. 5, these trees had renewed their foliage. Apanteles was the only introduced parasite to be recovered from this point.

3-4. Centralia, Wa. - Observation point along route U.S. 99 about a mile south of Thurston-Lewis county line. Carolina poplars lightly infested. Very little defoliation occurred this year. Last year the adjacent trees (and possibly these) were completely defoliated which resulted in one instance of the owner having them cut back in hopes of killing them. - see view 4. So far as I can see, all of the trees appear in good condition and even the topped trees, which were defoliated as fast as they leaved out, are still very much alive. Apanteles and Meteorus have been recovered from this point. Photo. taken July 17, 1935.

5. Silvana, Wa. - Observation point off of route U.S. 99 on Norman-Florence road, one half mile west. Lombardy poplars, mediumly infested. The last instar larval collections were made in an adjacent area of willow growth since the poplar infestion petered out. Interesting to note that the dissections of early larval collections, taken from the Lombardys, gave 25%

Apanteles parasitism. None of the other introduced parasites were recovered. The picture was taken June 26, at which time the willows were completely defoliated. Refoliation was complete on July 26. The trees in foliage are maples. This type of infestation with subsequent defoliation, varying from a small group of willows to ones an acre or more in extent are common to the region.

6. Burlington, Wa. - Point location on route U.S. 99 about one mile north of Skagit river. Three road-side willows completely defoliated, June 26, 1935. The foliage of these trees was completely restored by July 26. Apanteles and Compsilura were recovered. Photo. taken June 26.

7. Stanwood, Wa. - Observation point located one eight mile west from route U.S. 99 on wood road leading to island (called Milltown). The growth is mixed, willow and a few cottonwoods predominating. A considerable area is so represented and defoliation occurred over a large portion of it this year. The photo. of the cottonwood and adjacent willows was taken on June 26. The willow foliage was renewed by July 26, but that of the cottonwoods was still in poor shape. In this locality many of the willows bear dead branches, possibly due to the satin moth injury, perhaps to other causes. Apanteles was the only introduced parasite recovered.

8. Sumner, Wa. - Observation point located at Pierce County picnic grounds. Cottonwood growth predominates. Presumed to be a light infestation (collection of 100 hibernating larvae took one and one-half hours) it has proved to be one of the heaviest. Last year a light infestation existed with some defoliation on the outskirts. This year an area of 25? acres was practically stripped. The trees which suffered defoliation last year appeared in good foliage this year with little if any defoliation. The picture was taken July 8, and today, Aug. 8, the trees have not yet regained their normal foliage. I believe it doubtful if some of them do so since they were so heavily fed

upon that the foliage was eaten just as soon as it appeared and they have really had no decent leaves on them. Apanteles, Meteorus, and a few Compsilura were recovered of the introduced parasites.

9. Sumner, Wa. - Same area as 8. Photo. taken July 8.

10-11. Sumner, Wa. - Same area as 8. Photo. taken June 27. The smaller trees in the foreground are maples.

12. Sumner, Wa. - Same locality as 8. Photo. taken June 27.

13. Sumner, Wa. - View of a large cottonwood, nearly a 100 feet in height with a diameter of four and one-half feet, completely defoliated; tree to the left is an alder; to the right a maple. The cottonwood was in good foliage early in the spring but became gradually defoliated by the caterpillars crawling from the stripped area. At date, Aug. 9, the tree still lacks its normal foliage.

14. Sumner, Wa. - Same as 8. Photo. taken June 27.

15-16-17 - Lakeview, Wa. (Clover Creek) Photo. taken July 1, - living, dying and dead cottonwoods. The living trees are shown with varying degrees of defoliation. The foliage of the defoliated trees had not returned to normal when last seen, Aug. 5. This condition is typical of the cottonwoods along this and the neighboring creeks and is, according to those residing in the locality, due to the satin moth. It is said that these trees have been more or less defoliated every year for at least three years, and that all of them were in a healthy condition until the satin moth appeared. As proof of this statement one owner showed me a tree that he had protected and that had never been defoliated. This tree stood near the others and was without a dead limb and in perfect foliage. Apanteles, Meteorus, and Compsilura were recovered from this locality.

18. Greendale, Wa. - Observation point at Muck Creek, on south side of McKenna highway - cottonwoods and willow; infestation medium. Defoliation

of some of the trees was observed by resident during 1933-34. According to Baker, two of the trees standing nearest the highway and but little fed upon, were the ones most heavily defoliated last year. The picture was taken July 4, at which time complete defoliation of adjacent willow growth andpartial to complete defoliation of some of the cottonwoods was observed. Apanteles and Meteorus have been recovered from this locality.

19-20. - Greendale, Wa. - Same area as 18,a short distance south of point. Photo. taken July 4, and 11.

21. Greendale, Wa. - Same area as 18, (across the street). The foliage of the cottonwood was eaten just as fast as it grew. It seems certain that the satin moth, in such cases as this, must hasten the death of tree.

22. East Greendale, Wa. - Several acres of cottonwoods were partially to completely defoliated July 11, when this picture was taken.

23-24. East Greendale, Wa. - Same area as 22; photo. taken July 11. The trees in foliage are maple and ash. The large cottonwoods in the foreground (center) are dying or dead. This would probably be laid to satin moth injury, but I believe it only natural death. The trees are huge ones and the nearby stumps suggest the more or less recent death of others, presumably of the same species. Apanteles,Meteorus, and a few Campsilura were recovered from this point.

25. Redmond, Wa. - Observation point is located near by. This picture is of the Sammamish Valley, taken June 27. The central area, in the middle ground, is composed of mixed growth, possibly 90% willow, with some small cottonwoods. This is the area reported on by Falta (1934) as, "north of Redmond." Defoliation has occurred several times during the past ten years - possibly tent caterpillars in the earlier years. Defoliation was nearly complete in 1934 and practically so in 1935. It is the largest single tract of defoliation that I have seen, approximately 100 acres. Apanteles and

Compsilura were recovered from Redmond.

26. Redmond, Wa. - Same area as 25. Photo. taken June 27, shows a small cottonwood standing among defoliated willows. The foliage of the latter was completely restored July 26, that of the cottonwood still in poor shape.

27. Longview, Wa. - Observation point located on Hudson St., west of 14th Ave. Lombardy poplars with a light infestation of recent origin. In the neighborhood are many plantings of the same species, some of which are infested. At the point there was a partial defoliation of several trees. Apanteles was the only introduced parasite recovered. Photo. taken July 17.

28. Longview, Wa. - Isolated stand of native cottonwood (P. trichocarpa) completely defoliated. These trees are sound and have few if any dead limbs. Photo. taken July 17. (The site is immediately behind the Memorial Hospital)

29. Longview, Wa. - Same as 28. Photo. taken July 17. The willows in the foreground were also completely defoliated but have regained their foliage.

30. Longview, Wa. - Growth of poplars, (not P. trichocarpa, more like Carolina var.) all but one of which suffered partial or complete defoliation. The trees on the right are Lombardys which showed no defoliation. Photo. taken July 17. (Location, opposite 16th Ave. & Nicholas Blvd.)

31. Native cottonwood partially defoliated by satin moth. This is the most common type of infestation seen. Photo. taken July 17, -(location about one mile north of Kelso on route U.S. 99 - across the river)

32. Longview, Wa. - Isolated group of native cottonwoods. The large tree was completely defoliated. The dead limbs of this tree (plainly seen in picture) are typical of many trees of this species and bear no connection whatever with satin moth injury. (Location, Kessler St. & 20th Ave; near First Christ Church. Photo. taken July 17.)

33. Bush, Wa. - Native cottonwood defoliation. The second tree from the left, in dying condition, is said to be the result of satin moth defoliation.

According to resident, these trees have been stripped for the past three years. Photo. taken July 17.

34. Tacoma, Wa. - Lombardy poplars completely defoliated. These trees have been twice stripped of their foliage prior to 1935. The picture was taken July 6, and refoliation was complete July 28; the trees apparently in good health. (Location, tennis Club, Tacoma Ave;)

35. Tacoma, Wa. - Carolina poplars completely defoliated July 6, when this photo. was taken. These trees were not seen again until Aug. 11, at which time the foliage appeared thin on some of the trees while on others it was quite normal. A heavy infestation for 1936 is evidenced by the large amount of young larvae now feeding. Most of the leaves on two of the most thickly foliated trees are already brown and much more feeding can be expected. (Locality, Madison St., north & 36th St. north.)

36. Tacoma, Wa. - Native cottonwoods showing the most common type of satin moth defoliation. These two trees are perfectly sound and without dead limbs or branches. They were in good foliage early in the season and the defoliation was gradual reaching its maximum July 1, when this picture was taken. The lost foliage has not been restored to date, Aug. 9. (Location, north side of route U.S. 410, 2 miles east of U.S. Tacoma Hospital.)

37. Puyallup, Wa. - Truck crop laboratory. U.S. Bureau of Entomology and Plant Quarantine.

38. Bush, Wa. - Lombardy poplars. These trees have been infested with the satin moth since 1931. According to resident, partial defoliation occurred during 1932-33-34. There was no noticeable defoliation in 1935. These trees are magnificent - one a hundred or more feet in height and over five feet in diameter. Photo. taken July 17,(Location, Bush estate, about 5 miles south of Olympia on route U.S. 99.)

39. Bush, Wa. - Same as 38. Photo. taken July 17.

40. Olympia, Wa. - White poplar completely defoliated July 2, when this picture was taken. According to resident, this tree was completely defoliated last year (1934). Location, Franklyn and Maple Sts.

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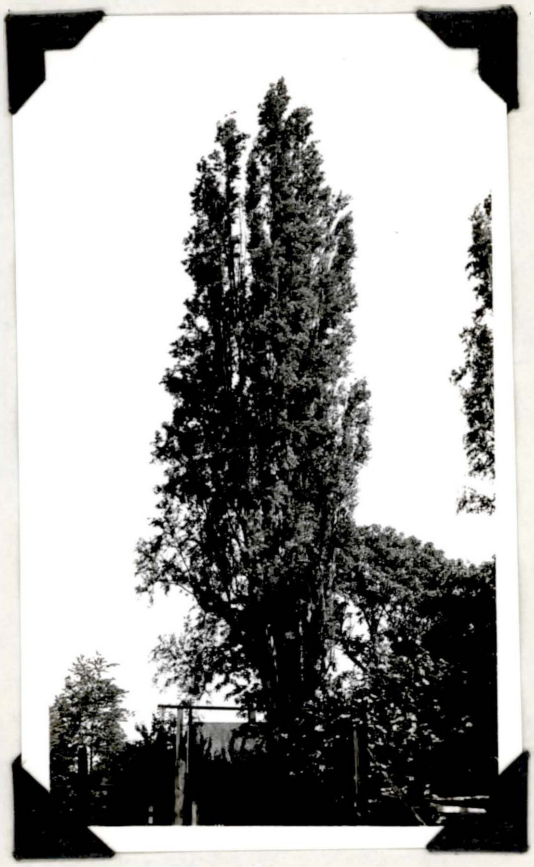

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Improved

Cut-over

Insufficient

Survival 6/27